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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,260	07/27/2001	Ta-Ching Pong	BEU/PONG3003	6814
23364	7590	10/20/2003	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			CUEVAS, PEDRO J	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,260	PONG, TA-CHING	
	Examiner	Art Unit	
	Pedro J. Cuevas	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-6, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,382 to Dauwalter in view of U.S. Patent No. 4,868,443 to Rossi.

Dauwalter clearly teaches the construction of a magnetic actuator and position control system (10) for driving a part of an apparatus comprising:

a disc-shaped flat metal rotor (12) including a plurality of slots (17) that extend into the rotor and that are distributed around a center of the rotor in a generally circular configuration, said rotor being arranged to rotate around a single axis of rotation (Center of Rotation in Figures 1 and 2A); and

a stator including a plurality of coil means (24, 34) positioned near the rotor along at least a portion of the periphery of the motor to cause rotation of the rotor by magnetic interaction therewith.

However, it fails to disclose energy controlling commutation means for detecting a position of said slots in order to detect a position of said rotor relative to said coils, and causing current to pass through said coil means based on the detected position of said slots in order to cause rotation, and control driving, of the rotor.

Rossi teach the construction of a tachometer for electric machines having energy controlling commutation means (column 8, line 62 to column 9, line 33) for detecting a position of said slots in order to detect a position of said rotor relative to said coils, and causing current to pass through said coil means based on the detected position of said slots in order to cause rotation, and control driving, of the rotor for the purpose of exciting specific coils at specific moments by electric circuits.

It would have been obvious to one skilled in the art at the time the invention was made to use the energy controlling commutation means disclosed by Rossi on the magnetic actuator and position control system disclosed by Dauwalter for the purpose of exciting specific coils at specific moments by electric circuits.

3. Claims 3-4, 7-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,382 to Dauwalter in view of U.S. Patent No. 4,868,443 to Rossi as applied to claims 1-2, 5-6, and 9-10, further in view of U.S. Patent No. 6,283,255 B1 to Gardner et al.

Dauwalter in view of Rossi disclose the construction of a magnetic actuator and position control system as described above.

However, it fails to disclose parts of the rotor forming at least one spoke of the wheel of a vehicle and being part of a brake system for a wheel of a vehicle.

Gardner et al. teach the construction of a brake and pulley assembly for a motorcycle in which parts of a disc-shaped metal rotor disk forms a spoke of the wheel, and is part of a brake system for a wheel of a vehicle for the purpose of stopping the motorcycle.

It would have been obvious to one skilled in the art at the time the invention was made to use the brake and pulley assembly disclosed by Gardner et al. on the magnetic actuator and

position control system disclosed by Dauwalter in view of Rossi for the purpose of stopping the motorcycle.

4. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,382 to Dauwalter in view of U.S. Patent No. 4,868,443 to Rossi, further in view of U.S. Patent No. 6,283,255 B1 to Gardner et al. as applied to claims 3-4, 7-8 and 11-12 above, and further in view of Brembo High Performance FAQ's.

Dauwalter in view of Rossi, further in view of Gardner et al. disclose the construction of flat induction motor as described above.

However, it fails to disclose slots extending completely through said rotor.

Brembo High Performance FAQ's teach the use of slotted and cross-drilled discs in high performance brake systems for the purpose of providing enhanced cooling efficiency and reduced weight.

It would have been obvious to one skilled in the art at the time the invention was made to use the cross-drilled discs disclosed by Brembo High Performance FAQ's on the flat induction motor disclosed by Dauwalter in view of Rossi, further in view of Gardner et al. for the purpose of providing enhanced cooling efficiency and reduced weight.

Response to Arguments

5. Applicant's arguments filed June 26, 2003 have been fully considered but they are not persuasive.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., slots that extend through the rotor) are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. In response to applicant's argument that the slots are used to "control driving", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

8. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for

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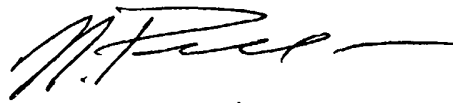
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the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
October 9, 2003



Nicholas Ponomarenko
Primary Examiner
Technology Center 2800